

# Blanket chest

**EXCLUSIVE**  
design  
COMMISSIONED BY  
GOOD WOODWORKING

*made entirely of*  
**WOOD**

\*\*\*\*\*  
**PROJECT GUIDE**  
DIFFICULTY: Advanced  
TIME: 48 hours  
TYPE: Furniture

## PROJECT Blanket chest

### Edward Hopkins explains how to make a wooden catch and hinges for a panelled blanket chest made by Richard Green



A chest is perhaps the most functional piece of furniture it is possible to make. It is after all just a box, but a box of such stature that every untidy house in the country must need one. It is traditional to cram it with silver plates and jewels, ready for a quick getaway. However if, as with me, they've already got away, you can use it for your next most valuable items like the paperbacks you've never read, clothes that don't fit anymore or a spare pillow and a couple of old blankets. Or your entire linen store.

#### Flexible Construction

This chest is small, designed to sit at the end of a single bed. Yours can be stretched in length and depth while still staying at a convenient

#### Which wood?

We used pine which comes finished to about 20mm (8in or 5/8in) thick. If you prefer to make this chest from a hardwood such as oak or ash, reduce the thickness to 18mm or even 16mm (5/8in or 3/4in) otherwise it will look and feel massive.

height to sit on. Make it with three panels for a chest at the end of a double bed or even four for a paneled king size (in which case add central legs to prevent sag). The construction remains essentially the same.

There are two main

methods of chest construction and this example uses both. The simplest and the oldest constructed chests were boarded and nailed together. These pieces have shrunk and cracked over the years. No-one really minds but today wind whistling gaps are deemed to represent bad craftsmanship. Just by ensuring the grain direction lines up you can avoid this.

If you cut a long, wide plank (or several planks joined to appear as one board) into four shorter lengths and nail them back together at right angles, the front, sides and back will all shrink equally across the grain with a slight loss of height but without any tendency for them to fall apart. A floor of loose boards resting on battens will help to keep the box square and a boarded lid will close it.

If the lid overhangs the box, here too shrinkage will have little obvious effect. Raise the floor a few inches so that you can chop out some decorative feet and you'll have a perfectly acceptable chest.

Later versions were less crude. The makers used frame and panel construction so most of the shrinkage took place harmlessly in the panels while the thin frame was securely jointed and strong enough to hold the whole piece rigid. The sides, back and top were all panelled like the front which was sometimes carved as



Edward Hopkins is studding and plasterboarding his cottage, trying to keep steps ahead of the plumber



Richard Green is working on massive laminated arches of ash on a curved balcony, for an architect's house



The ends of the chest are simple. The hole is a handle, but could be larger for easy sliding



The beauty of this chest is that all the panels are designed to be the same size. This makes preparation, gluing and nailing much easier



From behind you can see how the hinges have to be positioned on the legs. That's why the top had to interfere with the sides



## PROJECT Blanket chest



The notch for the hinge in the side makes an intriguing feature.



From underneath you can see how the floorboards sit on a battens.



The haunched tenons on the rails look good, but must be tight.



You can see already that the panels have moved in the heat of our effort.



The side panels have (regain) joined the boards, some here from below.

### MATERIALS YOU NEED

■ 32FT OF 6X10M PIR  
For framing.

■ 14FT OF 7X10M PIR  
For panels.

### TOOLS YOU NEED

■ SHOULDER PLANE  
For beveling panels.

■ ROUTER/PLANE  
For grooving.

■ SANDSAW  
For hinges.

■ PILLAR DRILL  
For hinges.

well. These chests look complicated to make and indeed there are many more processes involved (although most of them are simple enough by themselves) but the overall effect is stunning and well worth the trouble.

### Overall View

Our chest has panelling on the front, back and top. You could avoid panelling the back but it's the same as the front so once you're geared up for one you may as well do the other. The sides are simply vertical boarding.

The front and back frames are rebated so that the side boards can sit into them and be glued and pinned. The sides extend below the frames, where semi-circular cutouts identify two pairs of feet. Small holes pierce the sides higher up to help with ventilation and to act as carrying handles.

There are two main patterns of metal hinges which would work (butt hinges and T hinges), but this uses neither. Instead for the fun of it we made a pair of

wooden hinges and a third one as a hasp on the front.

### The Decorative Angle

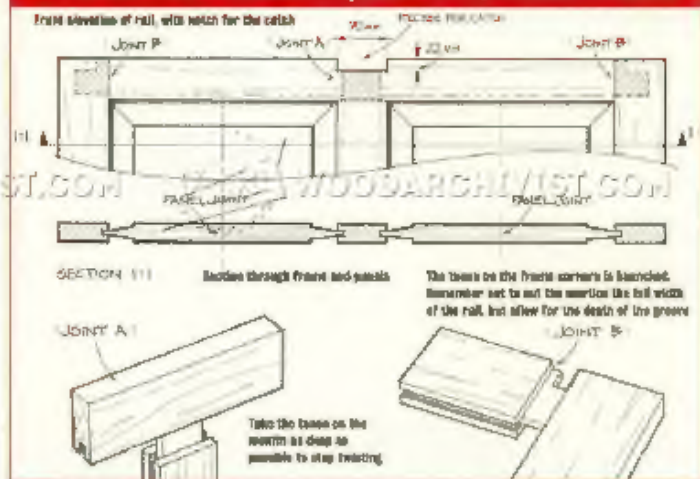
The appearance of the front of the chest is important. Unless it has a focal point of some sort (a lock or even a

keyhole will do) it will seem blank and unfinished like an iced cake without a cherry on top. The hasp is slotted to fit over the wooden simple which is dowelled or screwed from inside the front. A hole is drilled to take

a peg which keeps the lid locked adding a final detail.

There is I admit one slight aberration. I was happy to notch out the front (for the hasp to fold into) and the back (for the hinges) but it passed me by that the hinges,

### Details and sections of joints and panelled frames



## How to make the blanket chest with wooden fittings



1 Start by planing up the boards for the sides and the panels. Cut grooves along the edge for lines tongue to help location and gluing.



2 Because Richard has large ash oranges he was able to glue up a number of panels at a time. You can clamp panels with large B-clamps.



3 The side panels have a semi-circular notched at the base to produce feet. You can wrap abrasives around a plastic bottle for hand sanding.



4 If you have a router use a panel cutter for the bevelled panels. Shape the panels by scoring the shoulder and then planing the bevel by hand.

### The Components

Join the boards which

**3** Sand the sides until trim lines to the final size. Cut

[illegible]

of sandpaper. The hole could be a little bit bigger than it is.

**4** Prepare the frame components. All should be to final width and thickness.

but slightly overlength. Lay them out as they will be and mark them accordingly. Where a panel will fit, mark X on the inner edge, to be grooved. The procedure for standard panelling is always

**5** Mark out the fingers on the rings and catch the stick. Note that one part has four fingers and the other has three so that they interlock.



**6** Cut along the fingers with a jigsaw first. You can also use the saw to cut off some waste on the three-finger head.



**7** Cut out the weeds with a coping saw, clearing up the bottom of each notch with a chisel. Make sure the fingers are a good fit.



**8** Use a combination square to find the position of the hinge pin. Leave a little space on the end of the fingers in case of breakage.



the same. ④ Groove the inside edges of frame components. Allow the groove to run full length of the timber (at best using a router table or spindle moulder). ⑤ Cut mortices in the stiles (B and F) at the same thickness as the groove. Remember that the tenon

(and therefore the mortice) will be narrower than the rail by the depth of the groove.

⑥ Tenon the rails (C, D and G) having cut them to exact length. Remember to haunch the outer edges to fill the groove. This is a neat finish to the joint and one which helps prevent twisting.

### The Panels

5 With the frames dry assembled, measure exactly the size of the panels (J and K) and then subtract a couple of millimeters. Under no circumstances should the panel be too large for safe to touch under. Join the panels as necessary, trim the panel stiff to size.

6 Fielding the panels can be done by hand or by machine. By machine, nothing beats a spindle moulder. By hand (G&W 17:70), at least start by cutting the raised shoulder first with a router, or face down on a tablesaw with crown guard removed (exercising great care and using our Shaw guard hold-down on page 28). Avoid using a radial arm saw (safely because unless the panel is dead flat there is a risk of cutting too deep).

Failing all this, score the shoulder heavily with a craft knife. Using a shoulder plane or a bullroose plane (or any plane where the blade extends to the side of the sole) chamfer the edges of the panel down. When planing the mid-grain beware of grain breaking out at the end. Either plane in from the far

## The history of chests and trunks

The earliest known chests or wooden storage boxes were made in Egypt about 1300 BC. The term trunk probably came from the ancient practice of hacking out the inside from a tree trunk. These dug out chests were later lined with arched lids in medieval England, coffers were portable wooden strongboxes covered in thick leather. They were made by a specialist for storing clothes and valuables. The trunk chest and the blanket chest are refinements which often include drawers and are indeed the forerunner of the chest of drawers. They have been made by many joiners and cabinetmakers since the late 16th century.

end, or complete the ends before beginning the sides.

Plane (and knife) until the panel edge is sufficiently pointed to just squeeze into the groove. It must be neither

in contact with panels. Cramp tight and check for square although with close fitting panels.

8 Rebate with a router the edges of the front and back frames to accept the sides. You might have considered this easier before assembly, but the edges would have been liable to damage in the cramping.

Trim all the rails flush with the frame. Sand the three frames and the faces the panels.

9 Nail the battens (not slightly short in case the sides expand) on the lower frame of the sides, to support the floor. Cut the floorboard to a snug fit both lengthwise and widthways. These battens do not need to be tongued and grooved.

Glue the front and back frames to the sides, reinforcing the joint if you wish with small nails punched below the surface and then filled. Check that the assembly is square but panic not if it isn't. Just use



The mid-grain on the batten joint makes a wooden hinge back so good

so tight as to bulge the frame nor so loose as to rattle. Take care of the corners where the fielding meets in a wriggle. Practice on waste wood until you've got the hang of it. When it fits, clean it carefully with sandpaper on a block.

7 Clean up the groove edges of the frames in a minute you won't be able to get at them again. Dry assemble the frames with panels. Cramp them tight and check for fit. Disassemble. Apply glue carefully to mortices and tenons. No glue should come

## Cutting List for a Blanket Chest

	MATERIAL	QTY	LENGTH	WIDTH	THICK
A Front and back leg stile	Pine	4	538mm 21 1/8"	28mm 1 1/8"	25mm 1"
B Front and back top rail	Pine	2	809mm 31 7/8"	57mm 2 1/4"	25mm 1"
C Front and back bottom rail	Pine	2	209mm 8 1/4"	78mm 3 1/8"	25mm 1"
D Front and back mullion	Pine	2	413mm 16 1/4"	68mm 2 3/4"	25mm 1"
E Front, back and top panel	Pine	4	349mm 13 3/4"	349mm 13 3/4"	25mm 1"
F Side	Pine	2	535mm 21 1/8"	396mm 15 5/8"	25mm 1"
G Top rail	Pine	2	813mm 32"	66mm 2 5/8"	25mm 1"
H Top stile	Pine	2	460mm 18 1/2"	66mm 2 5/8"	25mm 1"
J Tenon for side	Pine	1	400mm 15 3/4"	68mm 2 3/4"	25mm 1"
K Moulded panel	Pine	6	150mm 6"	68mm 2 3/4"	25mm 1"
L Floor	Pine		809mm 31 7/8"	340mm 13 3/8"	25mm 1"
M Floor battens	Pine	1	740mm 29 1/2"	25mm 1"	25mm 1"
N Staple	Pine	1	80mm 3 1/8"	52mm 2 1/4"	25mm 1"

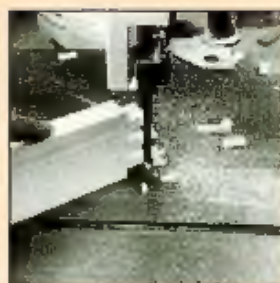
Cutting lists always give the full length of a piece including the joint, but not mortice. Note at least 25mm (1 1/8") ends for length and 5mm (1/8") on the ends and thickness of saw spots.

\* Make up rebate (joint) to this width

## Cleaning up and assembling the hinge or catch



9 You can use a hand saw for cutting the fingers. You also need pressure the results with the joint by working between the square bit by 80



10 Round the end of the fingers with a handplane, or by hand with a curved saw. plane, rasp and plane. Keep checking the fit



11 Clean up all the hinge and catch components. In an ideal world all the parts should be interchangeable, but identify the pieces



12 Preferably drill the holes for the pin in a pillar drill or drillpress. You can do this with the joint assembled, held with tape

Perspective view of pump, with details of joints

## The Hinges

**10** Begin with perfectly dimensioned lumber or you won't stand a chance. There is nothing particularly difficult about the hinges if they are approached calmly. Nevertheless make a spare. We cut the hinge fingers first, and then cut the leaves to length. Try to take each cut

Trim the ends dead square. Mark with the square shoulder line and the circles on the sides. Divide the width into an odd number of equal segments. Mark these segments with a marking gauge on male and female members alike. Hatch in the waste; confusion here is disastrous on witch oil.

last the workpiece can be gently moved from side to side touching the stop, to finishing cut cleanly.

**12** Test fit over flange to another male (they should all be identical). If the joint is tight, adjust. If it's loose, start again! Plane or sand the ends over until they are semi-circular and down to the marking on the edges. Finish with sandpaper.

Test drills and dowels nominally 6mm diameter for a good snug fit for the plug. You may have to adjust a thicker dowel.

Drill a fathom hole, using a drillstand and a sharp bit, drilling from each edge and meeting in the middle, with the hinge assembled. Take apart and clean up the insides of the joints.

Cut short lengths of 6mm dowel (or make your own). Sharpen one end to a bit of a point. Drive it through a similarly drilled hole in a piece of wastewood. This might turnish it down to size if necessary. Excessive force must not be needed: it is too easy to burst the hinge, especially in pine.

Assemble the male to female ends of each hinge. See that they are likely to

**13** Leaving the hinges assembled, cut each arm to length. Mould the little concave detail in each end using a router table. This can be replaced with a chamfer if you're lazy or only have hand-tools, but such touches do count. Notice that the moulding is reversed on the hasp where it acts as a finger-grip. Scrape out the side curves on the hasp with a coping saw and sandpaper.

**14** Cut the notch in the front panel (to accept the hasp) and two in the back panels (to accept the hinges). Continue the back notches along the side, having marked off from the hinge profile. Use a coping saw and a chisel for this final awkward shape.

**15** Lay the hinges with screws or dowels in — from the back and up into the top. Fit a couple of screws or dowels first to make sure the top aligns, ensuring that the muntin on the top aligns with the muntin on the front.

**16** Similarly, screw the hasp in place. Cut and shape the staple and screw this from inside the chest, checking as you do that the hasp will slide smoothly over it. Cut a peg to fit the hole.

**17** Finish the chest with wax. Paint a liquid wax (see page 82) on all external surfaces and edges. The inside is probably better left bare. It won't be bare for long. A space like this is a magnet. Next time you look inside there'll be stuff you didn't realise you couldn't live without.

**Fielding**  
The leading attendants  
said this can be  
run if you wish, but  
you'll need a speed  
interceptor.

**Abstract**

The leveling around a parcel which leaves in a fine square step up to the centre of the parcel (GW 12-20).

## There is a doctor

random fielder names,  
but this is a DOGMA  
(Kleinman 1994: 156)

## 19

The main strengths of frame and panel construction. They are normally marketed, but do not have to be the largest components, though that is usually the case in design.

## References

The group members in frame and panel they understand.

1992

The secondary  
uprights in a frame,  
parallel to the sides

1999

A piece of wood or metal that is longer than a wire that fits over a plate, through which a product or any can be drawn.

### Estimating costs

Much like an upside-down router, the *grind* is a new kind of one cutter. It has a cuttershank on the main spindle. You set it in any shape of radius into the block, and grind your own cutter.

**Crown guard**

Quartz that protects  
you all circular saw  
blade. Can be  
removed but you must  
and remove the wing  
hole which bites the  
wood blade. Doing so  
the wheel and kicking



**13** You may have to alter the diameter of the wheel to suit the bike. Use it with the bag open to give it a little rest, then it is done.



## NEW TECHNIQUE